



Fixed Speed
Constant Fill Fluid
Couplings



Fluidomat Ltd an ISO accredited company for ISO 9001-2015, ISO 14001-2015 & OHSAS 18001-2007 is manufacturing fluid couplings since 1971 in various types & executions. Various types include.

- Constant Fill fluid couplings in Aluminium & Steel body Oil filled & Water filled.
- Scoop Control Variable Speed fluid couplings type SC.
- Nozzle type fluid couplings.
 1. Type FNCT for Industrial & Mining drives.
 2. Type HLN for IC Engine drives.

Fluidomat fluid couplings are used on more than 150 application in industrial, mining & automotive application.

Approved by all consultants, EPC companies & OEM internationally. More than 500 clients all over the world.





| INDUSTRY → APPLICATION | Power Plants | Sponge Iron & Steel | Metal | Cement and Paper | Fertilizer Chemicals and Petrochemical | Ore and Coal Mining, Washeries | Harbour Handling | Others |
|---------------------------------------|--------------|---------------------|-------|------------------|--|--------------------------------|------------------|--------|
| Ball and Rod Mills | | ● / ● | ● / ● | ● / ● | ● / ● | ● | | |
| Bucket Elevators | ● | ● | ● | ● | ● | | | ● |
| Car & Wagon Tippers | ● | ● | ● | ● | ● | ● | ● | ● |
| Centrifuges of Various Types | | | | ● | ● | | | |
| Clinker Grinders | ● | ● | ● | ● | | | | |
| Construction Machinery | ● | ● | ● | ● | | | ● | ● |
| Conveyor of Various Types | ● / ● | ● / ● | ● / ● | ● / ● | ● / ● | ● / ● | ● / ● | ● / ● |
| Rope ways | ● | ● | | | | ● | | |
| Cranes | ● | ● | ● | ● | ● | | | ● |
| Crushers & Pulverisers | ● / ● | ● / ● | ● / ● | ● / ● | ● / ● | ● | | ● |
| Desolventiser and Toaster | | | | ● | | | | ● |
| Extruders, Soap Plodders & Cutters | | | | | ● | | | ● |
| Pumps of various types | ● / ● | ● / ● | ● / ● | ● / ● | ● / ● | ● | | ● / ● |
| Fork Lifts | | ● | ● | ● | ● | | | ● |
| ID - FD Fans & Blowers | ● / ● | ● / ● | ● / ● | ● / ● | ● / ● | ● | | ● / ● |
| Ladle Cars | | ● | ● | | | | | |
| Mining Machinery | | | | | | ● | | |
| Mixers and Grinders of Various types | | ● | ● | ● | ● | | | ● |
| Bucket Wheel Excavators and Scrappers | | | ● | ● | ● | ● | | ● |
| Stacker cum Reclaimer | ● | ● | ● | ● | ● | ● | ● | ● |
| Vibrating Screens | ● | ● | ● | | | ● | | ● |
| Wire Drawing, Stranding and cabling | | | | | | | | ● |

● Constant Speed Coupling

● / ● Scoop Control/Variable Speed Coupling

I N D E X

6-11 SM & HF

12-13 SM-AR/HF-AR

14-15 SMP

16-17 ALFA-P

18-19 T-12

20-23 SF, CBSF & WF

24 SPECIFICATION OF OIL

25 MASS MOMENT OF INERTIA J

26 MOTOR CHARACTERISTIC CURVE

27 THERMAL PROTECTION



**Shaft Mounted
SM/SMD/SM-DX**

These are shaft mounted coupling enabling axially compact drive space. Rubber coupling on one end.

**Radially Displaceable
HF /HFD /HF-DX**

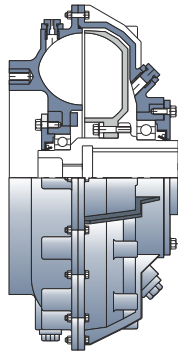
These are radially displaceable coupling enabling prealignment of driving and driven shafts. Metallic disc flexible coupling on both ends. Weight of coupling shared by driving and driven shafts.

- To satisfy starting and running characteristics of industrial machines Fluidomat offer three circuit types to give starting torque down to 120% of nominal torque.
- Type SM and HF are basic coupling without delayfil chamber. Starting torque adjustable in the range of 180% to 275%.
- Type SMD and HFD are couplings with delayfil chamber. Starting torque adjustable in the range of 140% to 275%.
- Type SM-DX and HF-DX are couplings with extended delayfil chamber. Starting torque adjustable in the range of 120% to 270%.
- Normal operating slip - 2% to 5% depending on coupling size and starting torque value.
- Fusible plug blow off temperature 130°C as standard. Optional 160°C.
- Suitable for two consecutive starts from hot and three from cold.

SM & HF

Different Executions of Oil Circuit

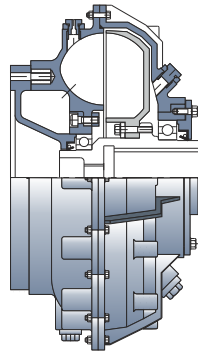
TYPE SM



without delayfil chamber

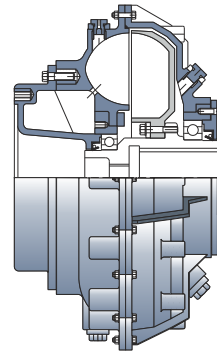
This unit ex-stock Naismith Melbourne

TYPE SMD



with delayfil chamber

TYPE SM-DX

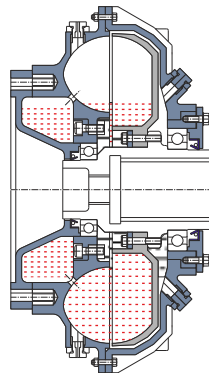


with extended delayfil chamber

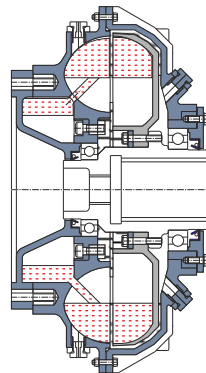
This unit held at manufacturer

Oil Circuit and Oil Levels with Delayfil Chamber

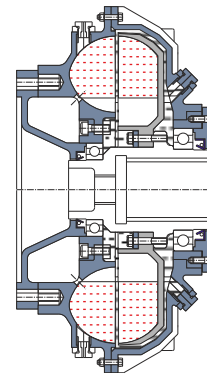
STAND STILL



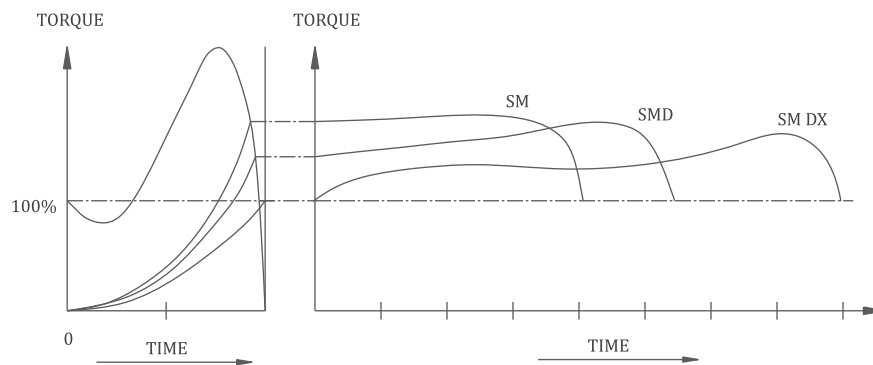
STARTING



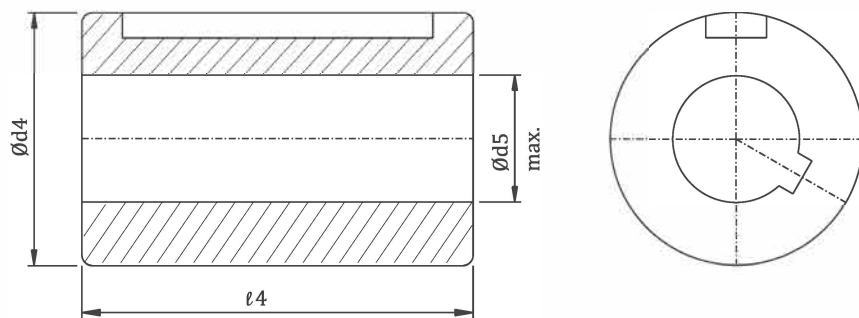
RUNNING



Starting Torque Characteristics With & Without Delayfil Chamber



TYPICAL VALUES



Coupling types SM/SMD/SM-DX are supplied in finished bores on the fluid coupling shaft. However where it is not possible to specify finished bores at the time of ordering, we can provide a separate shaft bush.

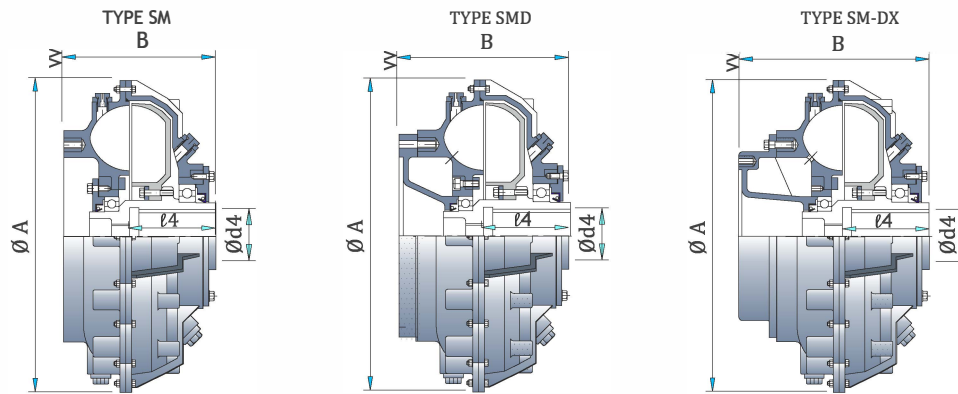
The allowable maximum bore in the shaft bush is denoted by Ød5 shown in the dimension table.

Rating Table

| COUPLING MODEL SM/SMD/SM-DX HF/HFD/HF-DX | Maximum Ratings in KW at Different Input Speeds RPM. | | | | | | | | |
|--|--|------------|------------|------------|-------------|-------------|-------------|--------------|--------------|
| | 600 RPM | 730 RPM | 900 RPM | 970 RPM | 1200 RPM | 1470 RPM | 1800 RPM | *3000 RPM | *3600 RPM |
| 1 | -- | 0.5 | 0.9 | 1.2 | 2.2 | 4 | 7.5 | 20 | 26 |
| 2 | -- | 0.9 | 1.7 | 2.2 | 4.1 | 7.5 | 13.7 | 30 | 36 |
| 3 | -- | 1.3 | 2.4 | 3 | 6 | 11 | 18 | 38 | 45 |
| 4 | 1 | 2 | 4 | 5 | 9 | 16.5 | 22 | 45 | -- |
| 5 | 2 | 4 | 7 | 9 | 16.3 | 30 | 42 | 70 | -- |
| 6 | 3 | 5 | 9 | 11 | 22 | 40 | 60 | 110 | -- |
| 7 | 4 | 8 | 15 | 18 | 34 | 62 | 85 | 140 | -- |
| 8 | 6 | 10 | 18 | 23 | 44 | 80 | 120 | -- | -- |
| 8 B | 9 | 16 | 29 | 36 | 68 | 125 | 180 | -- | -- |
| 9 | 12 | 22 | 41 | 52 | 98 | 172 | 246 | -- | -- |
| 9 B | 16 | 29 | 54 | 68 | 129 | 228 | 300 | -- | -- |
| 10 | 22 | 39 | 73 | 91 | 172 | 275 | 370 | -- | -- |
| 10 B | 32 | 57 | 107 | 134 | 253 | 373 | 500 | -- | -- |
| 11 | 47 | 85 | 158 | 198 | 374 | 525 | 775 | -- | -- |
| 12 | 82 | 148 | 278 | 348 | 600 | 750 | -- | -- | -- |
| 13 | 163 | 293 | 550 | 620 | 850 | 1100 | -- | -- | -- |
| 14 | 277 | 500 | 758 | 850 | 1250 | -- | -- | -- | -- |
| 15 | 472 | 850 | 1148 | 1250 | -- | -- | -- | -- | -- |
| 16 | 583 | 1050 | 1400 | 1500 | -- | -- | -- | -- | -- |
| 16 DC | 900 | 1500 | 1862 | 2000 | -- | -- | -- | -- | -- |

*Coupling for 3000 & 3600 RPM should be selected only after our approval is obtained.

SM & HF



☞ Reference face for flexible coupling.

Technical Specification and Dimension Table for SM,SMD,SM-DX couplings

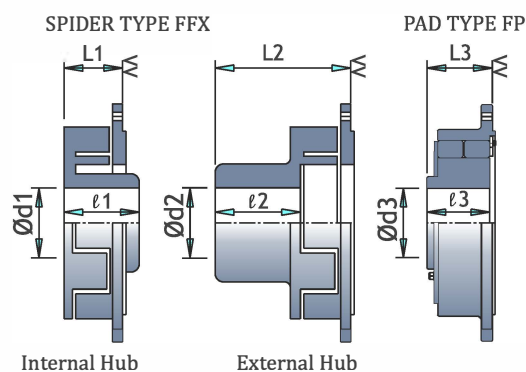
| SM SMD SM-DX | ØA | B | | | Ød4 max. | Ød5 max. | l4 max. | *Dry Weight Kg. | | | Max. Oil Filling Liters | | | Threads 'M' For Coupling Withdrawl | Connected Flexible Coupling Model |
|--------------------|------|-----|-----|--------|-------------|-------------|------------|-----------------|------|--------|-------------------------|-------|--------|--|--|
| | | SM | SMD | SMD-DX | | | | SM | SMD | SMD-DX | SM | SMD | SMD-DX | | |
| 1 | 295 | 147 | -- | -- | 38 | -- | 86 | 24 | -- | -- | 1.9 | -- | -- | 3/4" BSW | FFX-1 |
| 2 | 328 | 153 | -- | -- | 48 | -- | 90 | 27 | -- | -- | 2.8 | -- | -- | 3/4" BSW | FFX-1 |
| 3 | 342 | 158 | 213 | 247 | 42 | 28 | 80 | 27 | 30 | 32 | 2.9 | 3.9 | 4.3 | 3/4" BSW | FFX-1 |
| 4 | 367 | 160 | 215 | 249 | 50 | 36 | 90 | 30 | 34 | 35 | 3.8 | 4.3 | 4.6 | 3/4" BSW | FFX-1 |
| 5 | 406 | 190 | 220 | 280 | 65 | 50 | 110 | 40 | 44 | 45 | 4.9 | 5.8 | 6.7 | 1" BSW | FFX-2 |
| 6 | 435 | 213 | 239 | 310 | 70 | 53 | 120 | 55 | 59 | 61 | 6.5 | 7.7 | 9.6 | 1" BSW | FFX-3 |
| 7 | 471 | 218 | 263 | 333 | 80 | 63 | 135 | 66 | 71 | 73 | 8 | 9.4 | 11.3 | 1" BSW | FFX-3 |
| 8 | 505 | 238 | 279 | 359 | 80 | 63 | 140 | 77 | 83 | 85 | 9.7 | 11.5 | 14.8 | 1" BSW | FFX-4 |
| 8 B | 553 | 250 | 290 | 380 | 95 | 70 | 155 | 96 | 102 | 105 | 14.5 | 16.1 | 19.1 | 1 1/4" BSW | FFX-4 |
| 9 | 584 | 255 | 305 | 385 | 95 | 80 | 155 | 104 | 110 | 113 | 16.1 | 19.3 | 20.8 | 1 1/4" BSW | FFX-4 |
| 9 B | 620 | 270 | 335 | 430 | 95 | 80 | 160 | 150 | 165 | 168 | 19.4 | 21.5 | 24.7 | 1 1/2" BSW | FP-1/FFX-5 |
| 10 | 644 | 280 | 329 | 424 | 110 | 85 | 170 | 170 | 180 | 185 | 25.1 | 28.1 | 33.9 | 1 1/2" BSW | FP-1/FFX-5 |
| 10 B | 714 | 310 | 355 | 451 | 110 | 85 | 190 | 210 | 225 | 230 | 31.8 | 36.5 | 45.4 | 1 1/2" BSW | FP-2A |
| 11 | 751 | 320 | 375 | 471 | 120 | 100 | 200 | 254 | 268 | 273 | 37.1 | 42.9 | 49 | # Ø50-8P | FP-2A |
| 12 | 845 | 369 | 445 | 565 | 130 | 110 | 240 | 310 | 345 | 355 | 51.3 | 65.6 | 71.5 | # Ø50-8P | FP-2B |
| 13 | 960 | 441 | 489 | 619 | 150 | -- | 270 | 440 | 480 | 495 | 72.4 | 91.3 | 106.6 | # Ø50-8P | FP-3 |
| 14 | 1104 | 451 | 494 | 624 | 160 | -- | 275 | 682 | 730 | 745 | 114.7 | 131.9 | 153.9 | # Ø65-16P | FP-4A |
| 15 | 1230 | 485 | 594 | 724 | 160 | -- | 275 | 850 | 920 | 940 | 147.6 | 181.4 | 193.1 | # Ø75-16P | FP-4B |
| 16 | 1298 | 586 | 668 | 798 | 190 | -- | 320 | -- | 1250 | -- | 189.2 | 241.7 | 268.4 | # Ø75-16P | ** |
| **16 DC | 1298 | 831 | -- | -- | 190 | -- | 320 | -- | 1800 | -- | -- | -- | -- | Ø75-16P | ** |

The min bore d4 should be > withdrawal bolt dia M by atleast 3 mm.

* With Connected flexible Coupling. ** 16-Rfer to us for Detail.

Square threads.

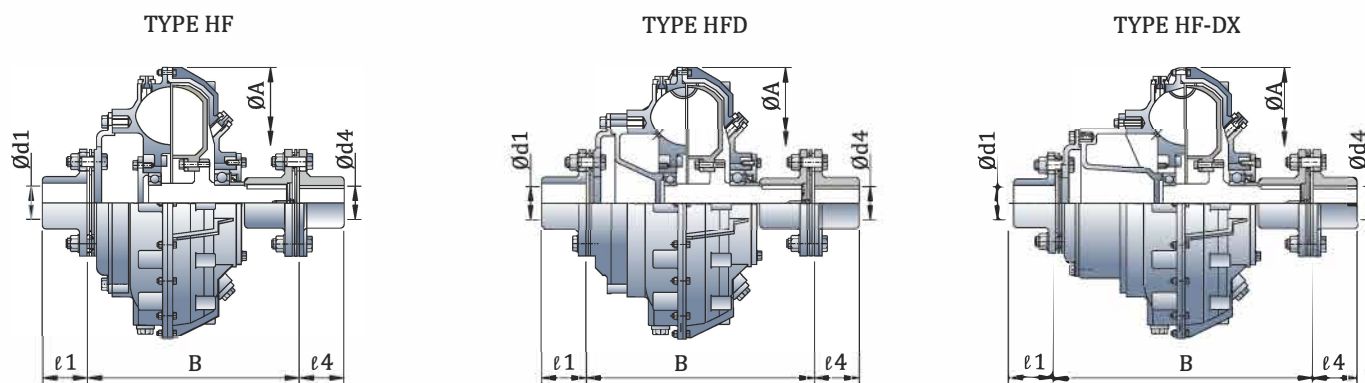
Flexible Coupling



☞ Reference face for flexible coupling.

Connected Flexible Coupling Model Wise

| Model SM- SMD- SM-DX | Internal Hub | | | External Hub | | | Model SM- SMD- SM-DX | Pad Type Coupling | | |
|-------------------------------|--------------|-----|----|--------------|-----|-----|-------------------------------|-------------------|-----|-----|
| | Ø d1 Max. | ℓ 1 | L1 | Ø d2 Max. | ℓ 2 | L2 | | Ø d3 Max. | ℓ 3 | L3 |
| 3,4 | 48 | 67 | 67 | 60 | 75 | 130 | 9B,10 | 100 | 110 | 120 |
| 5 | 60 | 72 | 72 | 75 | 90 | 150 | 10B,11 | 120 | 140 | 151 |
| 6,7 | 80 | 92 | 72 | 90 | 110 | 170 | 12 | 140 | 155 | 167 |
| 8,8B,9 | 90 | 102 | 87 | 100 | 120 | 195 | 13 | 160 | 180 | 179 |
| 9B,10 | - | - | - | 125 | 150 | 230 | 14 | 160 | 180 | 194 |
| | | | | | | | 15,16 | 180 | 200 | 214 |



Technical Specification and Dimension Table for HF, HFD, HF-DX Couplings

| Model HF, HFD, HF-DX | ØA | B | | | Ød1 & Ød4 max | l1 & l4 | *Dry Weight Kg. | | | Max. Oil Filling In Litres | | | Connected Flexible Coupling Model |
|----------------------------|------|-----|-----|-------|------------------------|---------------|-----------------|------|-------|----------------------------|-------|-------|--|
| | | HF | HFD | HF-DX | | | HF | HFD | HF-DX | HF | HFD | HF-DX | |
| 3 | 342 | 239 | 295 | 329 | 55 | 70 | 25 | 28 | 29 | 2.9 | 3.9 | 4.3 | FXC-I |
| 4 | 367 | 264 | 320 | 354 | 60 | 70 | 34 | 37 | 39 | 3.8 | 4.3 | 4.6 | FXC-II |
| 5 | 406 | 285 | 315 | 375 | 60 | 70 | 48 | 51 | 54 | 4.9 | 5.8 | 6.7 | FXC-II |
| 6 | 435 | 332 | 358 | 429 | 75 | 95 | 64 | 67 | 70 | 6.5 | 7.7 | 9.6 | FXC-III A |
| 7 | 471 | 345 | 390 | 460 | 75 | 95 | 81 | 84 | 86 | 8 | 9.4 | 11.3 | FXC-III A |
| 8 | 505 | 366 | 407 | 487 | 90 | 95 | 96 | 102 | 107 | 9.7 | 11.5 | 14.8 | FXC-III |
| 8 B | 553 | 405 | 445 | 535 | 90 | 110 | 116 | 122 | 127 | 14.5 | 16.1 | 19.1 | FXC-III |
| 9 | 584 | 395 | 445 | 526 | 90 | 110 | 124 | 130 | 135 | 16.1 | 19.3 | 20.8 | FXC-III |
| 9 B | 620 | 446 | 511 | 589 | 110 | 125 | 168 | 180 | 184 | 19.4 | 21.5 | 24.7 | FXC-IV A |
| 10 | 644 | 468 | 517 | 611 | 110 | 125 | 172 | 184 | 188 | 25.1 | 28.1 | 33.9 | FXC-IV A |
| 10 B | 714 | 491 | 537 | 632 | 110 | 125 | 217 | 233 | 237 | 31.8 | 36.5 | 45.4 | FXC-IV A |
| 11 | 751 | 511 | 566 | 661 | 120 | 125 | 281 | 292 | 300 | 37.1 | 42.9 | 49 | FXC-IV |
| 12 | 845 | 614 | 700 | 820 | 145 | 200 | 400 | 421 | 430 | 51.3 | 65.6 | 71.5 | FXC-V |
| 13 | 960 | 697 | 745 | 875 | 145 | 200 | 570 | 596 | 605 | 72.4 | 91.3 | 106.6 | FXC-V |
| 14 | 1104 | 770 | 813 | 943 | 220 | 200 | 640 | 688 | 703 | 114.7 | 131.9 | 153.9 | FXC-VI |
| 15 | 1230 | 777 | 886 | 1016 | 220 | 200 | 810 | 880 | 900 | 147.6 | 181.4 | 193.1 | FXC-VI |
| 16 | 1298 | 882 | 965 | 1095 | 220 | 200 | 1280 | 1320 | 1380 | 189.2 | 241.7 | 268.4 | FXC-VI |

* With Connected flexible Coupling.
Coupling for 3000 RPM should be selected only after our approval is obtained.

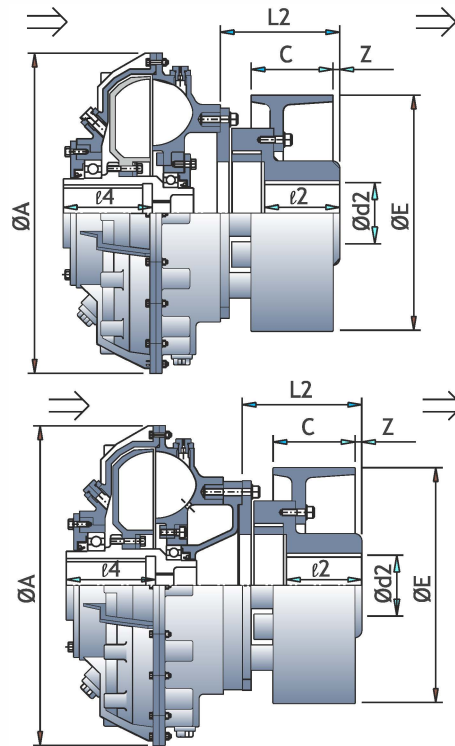
SM & HF

BRAKE DRUM MOUNTING

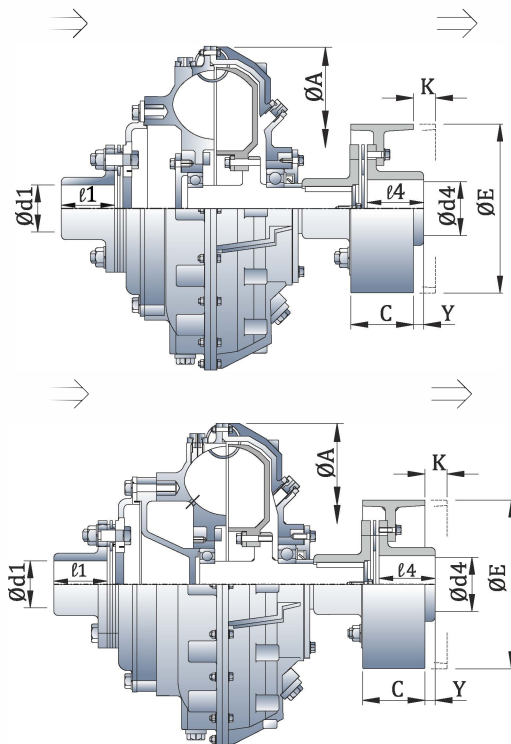
TYPE SM/SMD/SM-DX WITH BRAKE DRUM (Inner Wheel Drive)

| Flexible Coupling Model | Spider Type Coupling | | | | |
|-------------------------|----------------------|-----|----|-----|-----|
| | ØE | C | Z | ℓ2 | L2 |
| FFX-1 | 200 | 75 | 20 | 75 | 130 |
| | 250 | 95 | 0 | 75 | 130 |
| FFX-2 | 250 | 95 | 20 | 90 | 150 |
| | 300 | 118 | 05 | 90 | 158 |
| | 315 | 118 | 05 | 90 | 158 |
| FFX-3 | 300 | 118 | 17 | 110 | 170 |
| | 315 | 118 | 17 | 110 | 170 |
| | 400 | 150 | 05 | 110 | 190 |
| FFX-4 | 300 | 118 | 42 | 120 | 195 |
| | 315 | 118 | 42 | 120 | 195 |
| | 400 | 150 | 10 | 120 | 195 |
| | 500 | 190 | 05 | 120 | 230 |
| * FFX-5 | 400 | 150 | 29 | 150 | 230 |
| | 500 | 190 | 05 | 150 | 246 |

* For Fluid Coupling Model SM/SMD/SM-DX -9B & 10



TYPE HF/HFD/HF-DX WITH BRAKE DRUM (Outer Wheel Drive)



For radial displacement of Fluid Coupling the Brake drum shall need to be shifted by dimension 'K' As shown. The Machine/G.B. shaft length /space should be adequate for this shift of B.D.*

| Flexible Coupling Model | Metallic disc Coupling | | | |
|-------------------------|------------------------|-----|-------|--------|
| | ØE | C | Y | K* Min |
| FXC-I | 160 | 75 | 21 | 26 |
| | 200 | 75 | 21 | 26 |
| FXC-II | 200 | 75 | 19 | 26 |
| | 250 | 95 | 10 | 35 |
| FXC-III A | 250 | 95 | 35 | 35 |
| | 300 | 118 | 32 | 55 |
| FXC-III | 315 | 118 | 32 | 55 |
| | 250 | 95 | 48 | 35 |
| | 300 | 118 | 30 | 55 |
| | 315 | 118 | 30 | 55 |
| FXC-IV A | 400 | 150 | 18 | 73 |
| | 300 | 118 | 52 | 55 |
| | 315 | 118 | 52 | 55 |
| | 400 | 150 | 40 | 65 |
| FXC-IV | 500 | 190 | 05 | 70 |
| | 600 | 236 | (-)31 | 80 |
| | 630 | 236 | (-)31 | 80 |
| | 400 | 150 | 40 | 65 |
| FXC-V | 500 | 190 | 70 | 70 |
| | 600 | 236 | 34 | 70 |
| | 630 | 236 | 34 | 70 |
| | 630 | 236 | 34 | 70 |
| | 710 | 265 | 25 | 90 |



SM DX AR / HF DX AR COUPLING

Type AR Fluid Couplings are with annular ring and extra long delayfil chamber.

During the initial rotation, the annular ring fills up and the working circuit is partially emptied enabling very low torque transmission during motor run up (acceleration). This enables very quick acceleration of motor speed and quick decay of motor current.

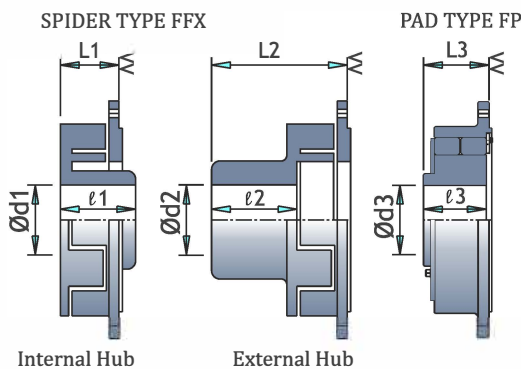
This is followed by increase in transmitted torque by gradual emptying of delayfil chamber oil into the working circuit. The torque is built up gradually and enables controlled acceleration torque to the driven machine.

Rating Table

| COUPLING MODEL SM DX AR & HF DX AR | MAX. RATINGS IN KW AT DIFFERENT INPUT SPEEDS RPM | | | | | | |
|--|--|---------|---------|---------|----------|----------|----------|
| | 600 RPM | 730 RPM | 900 RPM | 970 RPM | 1200 RPM | 1470 RPM | 1800 RPM |
| 9 | 12 | 22 | 41 | 52 | 98 | 172 | 246 |
| 9 B | 16 | 29 | 54 | 68 | 129 | 228 | 300 |
| 10 | 22 | 39 | 73 | 91 | 172 | 275 | 370 |
| 10 B | 32 | 57 | 107 | 134 | 253 | 373 | 500 |
| 11 | 47 | 85 | 158 | 198 | 374 | 525 | 775 |
| 12 | 82 | 148 | 278 | 348 | 600 | 750 | -- |
| 13 | 163 | 293 | 550 | 620 | 850 | 1100 | -- |
| 14 | 277 | 500 | 758 | 850 | 1250 | -- | -- |
| 15 | 472 | 850 | 1148 | 1250 | -- | -- | -- |

Flexible Coupling

Connected Flexible Coupling Model Wise

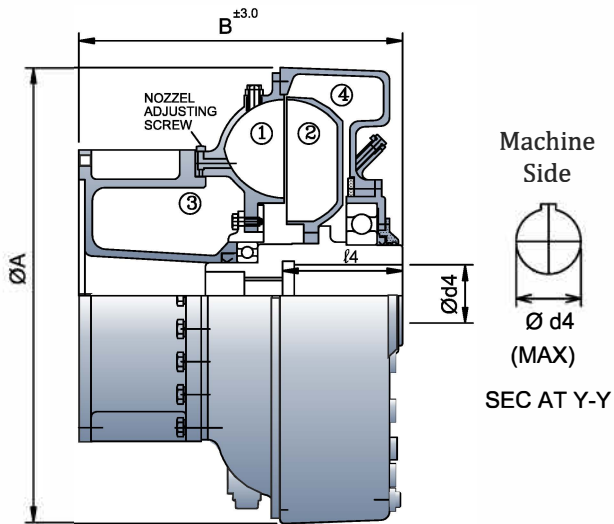


Internal Hub External Hub
 Reference face for flexible coupling.

| Model SM DX AR | Internal Hub | | | External Hub | | | Model SM DX AR | Pad Type Coupling | | |
|----------------------|--------------|-----|----|--------------|-----|-----|----------------------|-------------------|-----|-----|
| | Ø d1 Max. | l 1 | L1 | Ø d2 Max. | l 2 | L2 | | Ø d3 Max. | l 3 | L3 |
| 9 | 90 | 102 | 87 | 100 | 120 | 195 | 9B,10 | 100 | 110 | 120 |
| 9B,10 | -- | -- | -- | 125 | 150 | 230 | 10B,11 | 120 | 140 | 151 |
| | | | | | | | 12 | 140 | 155 | 167 |
| | | | | | | | 13 | 160 | 180 | 179 |
| | | | | | | | 14 | 160 | 180 | 194 |
| | | | | | | | 15 | 180 | 200 | 214 |

SM-AR/HF-AR

Type SM DX AR



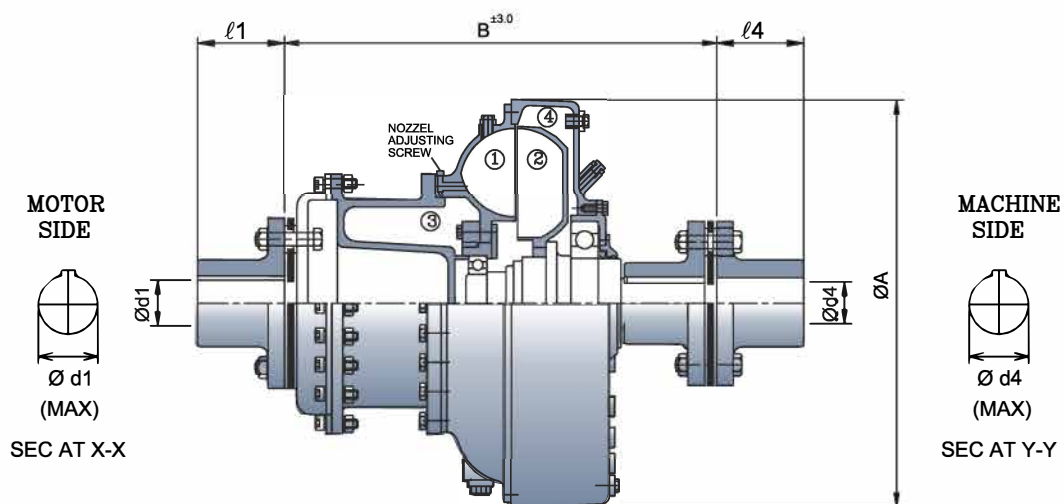
- 1) IMPELLER
- 2) ROTOR
- 3) DELAY FIL CHAMBER
- 4) ANNULAR CHAMBER

Dimension Table : SM DX AR

| COUPLING MODEL | ø A | B | ød4 | ℓ4 | * DRY WEIGHT (Kgs.) |
|----------------|------|-----|-----|-----|---------------------|
| SM 9 DX AR | 604 | 405 | 95 | 155 | 118 |
| SM 9B DX AR | 640 | 430 | 95 | 160 | 176 |
| SM 10 DX AR | 670 | 424 | 110 | 170 | 193 |
| SM 10B DX AR | 739 | 451 | 110 | 190 | 240 |
| SM 11 DX AR | 776 | 471 | 120 | 200 | 283 |
| SM 12 DX AR | 870 | 555 | 130 | 240 | 365 |
| SM 13 DX AR | 985 | 619 | 150 | 270 | 510 |
| SM 14 DX AR | 1130 | 624 | 160 | 275 | 765 |
| SM 15 DX AR | 1255 | 724 | 160 | 275 | 965 |

* With connected Flexible Coupling.

Type HF DX AR



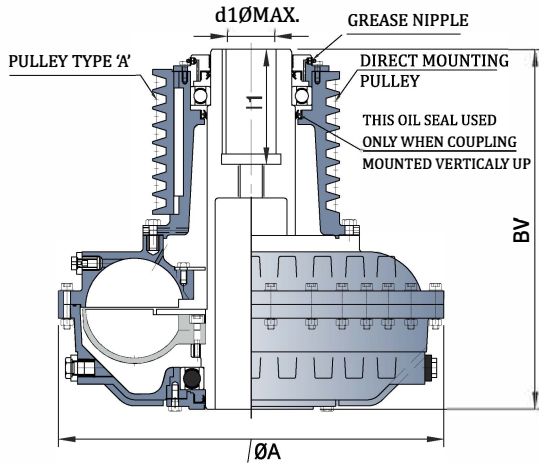
Dimension Table : HF DX AR

| COUPLING MODEL | ø A | B | ød1/ ød4 | ℓ 1 / ℓ 4 | DRY WEIGHT (Kgs.) |
|----------------|------|------|-------------|--------------|-------------------|
| HF 9 DX AR | 604 | 546 | 95 | 110 | 143 |
| HF 9B DX AR | 640 | 589 | 95 | 125 | 192 |
| HF 10 DX AR | 670 | 611 | 110 | 125 | 198 |
| HF 10B DX AR | 739 | 632 | 110 | 125 | 247 |
| HF 11 DX AR | 776 | 661 | 120 | 125 | 310 |
| HF 12 DX AR | 870 | 820 | 130 | 200 | 440 |
| HF 13 DX AR | 985 | 875 | 150 | 200 | 620 |
| HF 14 DX AR | 1130 | 943 | 160 | 200 | 723 |
| HF 15 DX AR | 1255 | 1016 | 160 | 200 | 1134 |

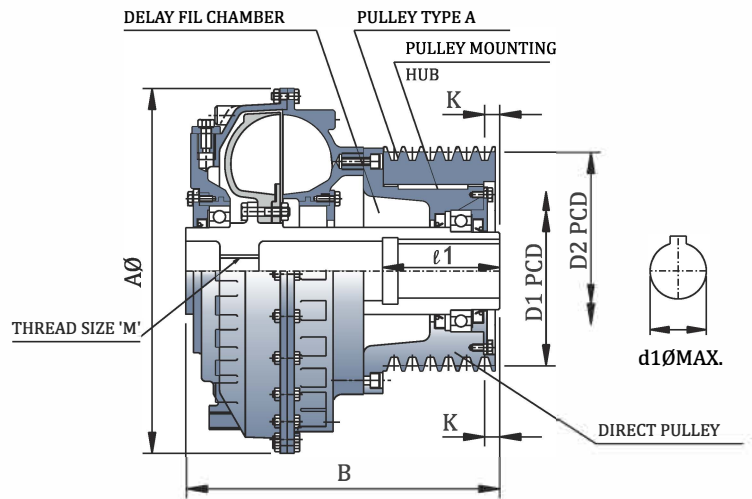


- SMP are fluid couplings for belt drive offering a wide range of pulley diameters.
- Have an in built delayfil chamber enabling quick decay of motor starting current.
- Suitable for two consecutive starts from hot and three from cold.
- Fusible plug blow off temp. is 130°C as standard. optional 160° C.

Model : SMP -vertical Mounting
Pulley Facing Up



For Horizontal & Pulley
Facing Down Mounting



Rating Table

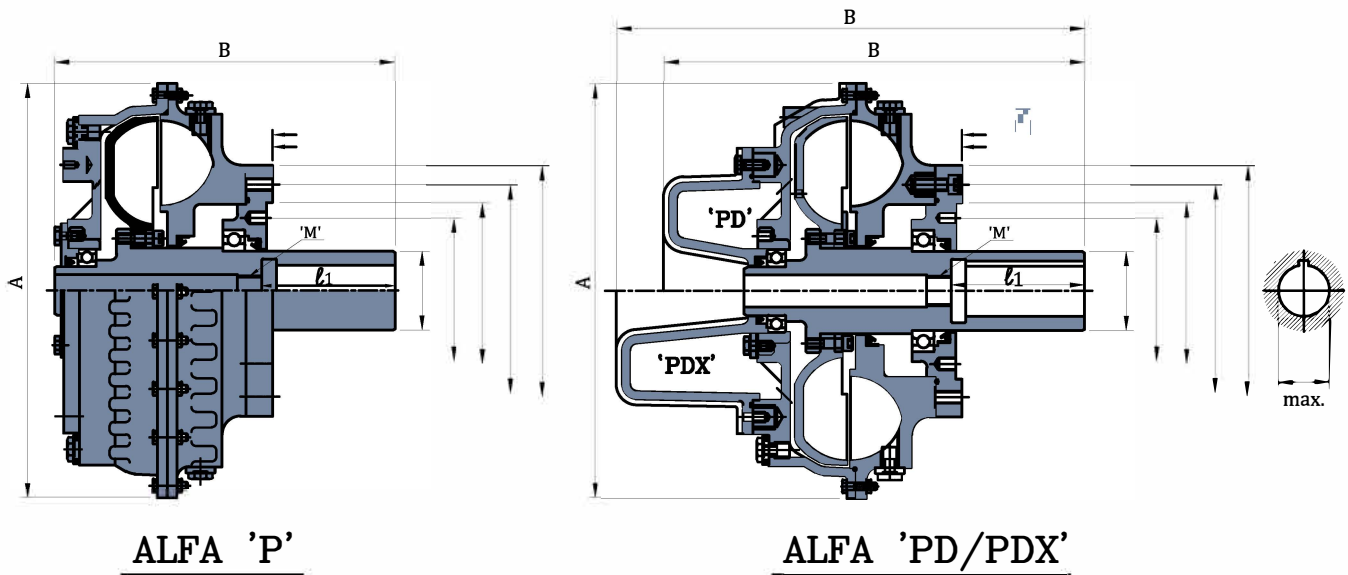
Technical Specification and Dimension Table For SMP

| Coupling Model SMP | Max. Ratings In Kw At Different Input Speeds Rpm | | | | | | Ø A | B | Pully Vertical Up BV | d1 max | l 1 | Dry* Wt. KG | Max. Oil Filling Liters | Threads M BSW |
|--------------------|--|-----|------|------|------|------|-----|-----|----------------------|--------|-----|-------------|-------------------------|----------------------|
| | 750 | 900 | 1000 | 1200 | 1500 | 1800 | | | | | | | | |
| 1R | 0.6 | 1 | 1.5 | 2.5 | 5 | 8 | 280 | 219 | 239 | 38 | 91 | 18 | 2.2 | 1/2" |
| 2R | 0.9 | 1.6 | 2.2 | 3.8 | 7.5 | 12 | 310 | 205 | 225 | 38 | 91 | 25 | 2.8 | 3/4" |
| 3R | 1.2 | 2.1 | 3 | 5 | 10 | 15 | 330 | 262 | 282 | 42 | 110 | 30 | 3.3 | 3/4" |
| 4R | 2.3 | 4 | 5.5 | 9.5 | 18.5 | 25 | 360 | 284 | 304 | 42 | 110 | 35 | 4.1 | 3/4" |
| 5R | 4.1 | 7 | 10 | 17 | 30 | 38 | 395 | 331 | 351 | 65 | 142 | 46 | 6.5 | 1" |
| 6R | 5.6 | 10 | 13.3 | 23 | 45 | 60 | 420 | 374 | 394 | 65 | 142 | 65 | 8.3 | 1 ½" |
| 7R | 8.3 | 15 | 20 | 34.6 | 67.5 | 85 | 465 | 395 | 415 | 75 | 142 | 92 | 11.1 | 1 ½" |
| 8R | 11.2 | 19 | 26 | 46 | 90 | 120 | 505 | 430 | 450 | 85 | 142 | 115 | 14.6 | 1 ½" |
| 8B-R | 16.6 | 29 | 39.4 | 68 | 133 | 180 | 553 | 495 | 515 | 90 | 155 | 121 | 18 | 1 ½" |
| 9R | 19 | 33 | 45 | 78 | 152 | 200 | 570 | 512 | 532 | 90 | 170 | 127 | 22 | 1 ¾" |
| 10R | 36 | 62 | 85 | 147 | 250 | 325 | 630 | 535 | 555 | 110 | 210 | 220 | 28.5 | 1 ¾" |
| 11R | 87 | 150 | 205 | 355 | 450 | ... | 740 | 590 | 610 | 110 | 210 | 275 | 44.8 | Ø50-8P Square Thread |

*with max. pulley Dia in Direct Pulley Mounting.
The Min. bore d1 should be > withdrawal bolt dia M by atleast 3mm.

Pulley Details

| MODEL | PULLEY GROOVE 'SEC' | Direct Pulley Mounting | | | | PULLEY GROOVE 'SEC' | Pulley Type-A | | | |
|-------------------------|---------------------|------------------------|-----------|-----|------------|---------------------|--------------------|-----------|-----|------------|
| | | MAX. NO OF GROOVES | ' D1' PCD | | ' K' ± 1.5 | | MAX. NO OF GROOVES | ' D2' PCD | | ' K' ± 1.5 |
| | | | MAX | MIN | | | | MAX | MIN | |
| SMP-1R | SPA/A | 3 | 260 | 140 | 16 | — | — | — | — | — |
| | SPB/B | 2 | 260 | 146 | 19 | — | — | — | — | — |
| | SPC/C | 1 | 260 | 156 | 23 | — | — | — | — | — |
| SMP-2R | SPA/A | 4 | 300 | 140 | 16 | — | — | — | — | — |
| | SPB/B | 3 | 300 | 147 | 19 | — | — | — | — | — |
| | SPC/C | 2 | 300 | 157 | 23 | — | — | — | — | — |
| SMP-3R SMP-4R | SPB | 3 | 160 | 145 | 26 | A | 5 | 260 | 160 | 18 |
| | SPB | 4 | 140 | 140 | 26 | B | 4 | 260 | 165 | 21 |
| | B | 4 | 140 | 140 | 26 | C | 3 | 260 | 170 | 25 |
| | B | 3 | 160 | 145 | 26 | SPA | 5 | 260 | 160 | 18 |
| | C | 2 | 140 | 140 | 30 | SPB | 4 | 260 | 165 | 21 |
| | C | 2 | 160 | 145 | 31 | SPC | 3 | 260 | 170 | 26 |
| SMP-5R | B | 5 | 180 | 175 | 23 | — | — | — | — | — |
| | C | 3 | 200 | 185 | 27 | B | 5 | 325 | 209 | 23 |
| | C | 4 | 185 | 180 | 27 | C | 4 | 325 | 215 | 27 |
| | SPB | 5 | 180 | 180 | 23 | — | — | — | — | — |
| | SPC | 3 | 200 | 195 | 27 | SPB | 5 | 325 | 213 | 23 |
| | SPC | 4 | 190 | 190 | 27 | SPC | 4 | 325 | 223 | 27 |
| SMP-6R | B | 6 | 200 | 175 | 34 | B | 6 | 350 | 220 | 22 |
| | B | 6 | 225 | 210 | 32 | C | 5 | 350 | 225 | 27 |
| | C | 5 | 200 | 180 | 32 | SPB | 6 | 350 | 222 | 22 |
| | C | 5 | 225 | 215 | 30 | SPC | 5 | 350 | 232 | 27 |
| | SPB | 6 | 200 | 180 | 34 | — | — | — | — | — |
| | SPB | 6 | 225 | 215 | 32 | — | — | — | — | — |
| | SPC | 5 | 200 | 190 | 32 | — | — | — | — | — |
| | SPC | 5 | 225 | 225 | 30 | — | — | — | — | — |
| SMP-7R | B | 6 | 228 | 195 | 26 | B | 6 | 380 | 224 | 26 |
| | C | 5 | 224 | 205 | 30 | C | 5 | 380 | 230 | 30 |
| | C | 5 | 200 | 200 | 30 | SPB | 6 | 380 | 230 | 26 |
| | SPB | 6 | 228 | 200 | 26 | SPC | 5 | 380 | 240 | 30 |
| | SPC | 5 | 225 | 215 | 30 | — | — | — | — | — |
| SMP-8R | B | 8 | 250 | 240 | 20 | B | 8 | 420 | 260 | 18 |
| | B | 8 | 235 | 225 | 20 | C | 6 | 420 | 265 | 22 |
| | C | 6 | 250 | 240 | 24 | SPB | 8 | 420 | 265 | 18 |
| | C | 6 | 235 | 230 | 24 | SPC | 6 | 420 | 275 | 22 |
| | SPB | 8 | 250 | 240 | 20 | — | — | — | — | — |
| | SPB | 8 | 235 | 230 | 20 | — | — | — | — | — |
| | SPC | 6 | 250 | 240 | 24 | — | — | — | — | — |
| | SPC | 6 | 235 | 235 | 24 | — | — | — | — | — |
| SMP-8B-R & SMP-9R | B | 10 | 250 | 235 | 28 | B | 10 | 500 | 260 | 25 |
| | C | 8 | 250 | 240 | 32 | C | 8 | 500 | 265 | 29 |
| | SPB | 10 | 250 | 240 | 28 | SPB | 10 | 500 | 265 | 25 |
| | SPC | 8 | 250 | 250 | 32 | SPC | 8 | 500 | 275 | 25 |
| SMP-10R | SPB/B | 12 | 350 | 285 | 19 | SPB/B | 12 | 520 | 360 | 19 |
| | SPC/C | 8 | 345 | 295 | 32 | SPC/C | 9 | 520 | 360 | 23 |
| SMP-11R | SPB | 11 | 359 | 300 | 5 | SPB | 11 | 500 | 360 | 3 |
| | SPC | 8 | 369 | 310 | 2.5 | SPC | 8 | 500 | 370 | 3 |
| | B | 11 | 350 | 292 | 5 | B | 11 | 500 | 352 | 2 |
| | C | 8 | 355 | 300 | 2.5 | C | 8 | 500 | 360 | 3 |



Rating Table

| "Coupling Model ALFA P / PD / PDX" | MAX rating in KW at different input speeds in RPM | | | | | | |
|------------------------------------|---|-----|-----|-----|------|------|------|
| | 600 | 730 | 900 | 970 | 1200 | 1470 | 1800 |
| 3 | ... | 1.3 | 2.4 | 3 | 6 | 11 | 18 |
| 4 | 1 | 2 | 4 | 5 | 9 | 16.5 | 22 |
| 5 | 2 | 4 | 7 | 9 | 16.3 | 30 | 42 |
| 6 | 3 | 5 | 9 | 11 | 22 | 40 | 60 |
| 7 | 4 | 8 | 15 | 18 | 34 | 62 | 85 |

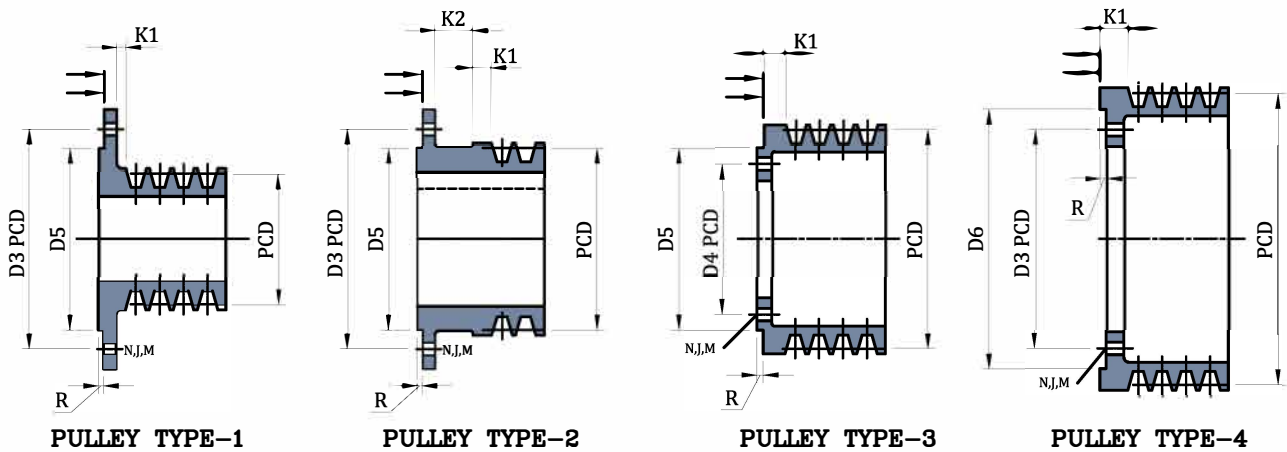
Alfa-P coupling are for Belt drive and are offered in different executions of with and without delayfil chamber. These couplings can be supplied without puyley and the pulley within specified range tabulated below, can be manufactured and installed by the buyer at his end. This provide flexibility for stocking and use of pulleys of different specification on the same coupling.

- Suitable for three consecutive starts two from hot and three from cold.
- Fusible plug blow of temperature 130°C as standard optional 160°C
- Oil to be used hydraulic Oil ISOVG32.

Technical Specification and Dimension Table For ALFA P, PD & PDX

| "Coupling Model ALFA P / PD / PDX" | PCD | | ØD | ØA | B | | | Ød1 Max | ℓ1 | Dry Wt. in KG. | | | Max. Oil Filling in Liters | | | Threads "M" BSW |
|------------------------------------|-----|-----|-----|-----|-----|-----|-----|---------|-----|----------------|----|-----|----------------------------|-----|-----|-----------------|
| | D3 | D4 | | | P | PD | PDX | | | P | PD | PDX | P | PD | PDX | |
| 3 | 175 | 120 | 65 | 342 | 289 | 351 | 390 | 42 | 110 | 24 | 27 | 28 | 2.8 | 3.2 | 3.2 | 3/4" |
| 4 | 175 | 120 | 75 | 367 | 293 | 361 | 390 | 50 | 110 | 30 | 34 | 35 | 3.8 | 4.2 | 4.2 | 3/4" |
| 5 | 215 | 140 | 90 | 406 | 356 | 413 | 463 | 65 | 142 | 40 | 44 | 45 | 4.9 | 5.4 | 5.4 | 1" |
| 6 | 255 | 162 | 100 | 435 | 395 | 456 | 526 | 65 | 142 | 55 | 59 | 61 | 5.6 | 7.1 | 7.1 | 1" |
| 7 | 255 | 162 | 110 | 471 | 405 | 464 | 534 | 75 | 142 | 66 | 71 | 73 | 8.3 | 8.8 | 8.8 | 1 1/2" |

ALFA-P



| "Coupling Model ALFA P / PD / PDX" | Locating Dia. For Pulley | | Pulley Mounting PCD | | 'R' | | | *N | *J | *M On Coupling |
|--|--------------------------|--------------|---------------------|-----|---------------|--------|--------|----|----|----------------------|
| | Type-1,2 & 3 D5 | Type-4 D6 | D3 | D4 | Type 1 & 2 | Type-3 | Type-4 | | | |
| 3 | 145 | 207 | 175 | 120 | 4 | 5 | 5 | 8 | 10 | M10 |
| 4 | 145 | 207 | 175 | 120 | 4 | 5 | 5 | 8 | 10 | M10 |
| 5 | 180 | 255 | 215 | 140 | 5 | 7 | 5 | 8 | 10 | M10 |
| 6 | 220 | 295 | 255 | 162 | 5 | 7 | 5 | 8 | 10 | M10 |
| 7 | 220 | 295 | 255 | 162 | 5 | 7 | 5 | 8 | 10 | M10 |

* 'N'- Number, 'J' - DIA DRILLED HOLES FPR 'M' - TAPPED HOLE IN COUPLING.

| PULLEY TYPE - 1 | | | | | |
|---------------------------|-----|---------|-------|------------------|------|
| MODEL | SEC | "D" PCD | | NO. OFF GROVE | K1 |
| | | MIN Ø | MAX Ø | | |
| ALFA P/PD/PDX 3 & 4 | B | Ø115 | Ø145 | 4 | 7.3 |
| | C | Ø120 | Ø140 | 3 | 5 |
| | SPA | Ø115 | Ø145 | 5 | 8.5 |
| | SPB | Ø120 | Ø145 | 4 | 7.3 |
| | SPC | Ø130 | Ø140 | 3 | 5 |
| ALFA P/PD/PDX 5 | B | Ø130 | Ø180 | 6 | 10.6 |
| | C | Ø140 | Ø180 | 4 | 20.9 |
| | SPA | Ø130 | Ø180 | 7 | 19 |
| | SPB | Ø135 | Ø180 | 6 | 10.6 |
| | SPC | Ø145 | Ø180 | 4 | 20.9 |
| ALFA P/PD/PDX 6 & 7 | B | Ø150 | Ø220 | 7 | 16.3 |
| | C | Ø160 | Ø220 | 5 | 20.6 |
| | SPA | Ø150 | Ø220 | 9 | 14.5 |
| | SPB | Ø160 | Ø220 | 7 | 16.3 |
| | SPC | Ø170 | Ø220 | 5 | 20.6 |

| PULLEY TYPE - 2 | | | | | | |
|---------------------------|-----|---------|-------|------------------|------|------|
| MODEL | SEC | "D" PCD | | NO. OFF GROVE | K1 | K2 |
| | | MIN Ø | MAX Ø | | | |
| ALFA P/PD/PDX 3 & 4 | B | Ø145 | Ø172 | 2 | 15 | 33.5 |
| | C | Ø140 | Ø180 | 2 | 1 | 33.5 |
| | SPA | Ø145 | Ø172 | 3 | 9 | 33.5 |
| | SPB | Ø140 | Ø180 | 2 | 15 | 33.5 |
| | SPC | Ø140 | Ø140 | 2 | 1 | 33.5 |
| ALFA P/PD/PDX 5 | B | Ø180 | Ø200 | 4 | 18 | 39.0 |
| | C | Ø180 | Ø210 | 3 | 16.5 | 39.0 |
| | SPA | Ø180 | Ø200 | 5 | 4.5 | 39.0 |
| | SPB | Ø180 | Ø210 | 4 | 18 | 39.0 |
| | SPC | Ø180 | Ø220 | 3 | 16.5 | 39.0 |
| ALFA P/PD/PDX 6 & 7 | B | - | - | - | - | - |
| | C | - | - | - | - | - |
| | SPA | - | - | - | - | - |
| | SPB | - | - | - | - | - |
| | SPC | - | - | - | - | - |

| PULLEY TYPE - 3 | | | | | |
|---------------------------|-----|---------|-------|------------------|------|
| MODEL | SEC | "D" PCD | | NO. OFF GROVE | K1 |
| | | MIN Ø | MAX Ø | | |
| ALFA P/PD/PDX 3 & 4 | B | Ø172 | Ø230 | 4 | 17.3 |
| | C | Ø180 | Ø235 | 3 | 15 |
| | SPA | Ø172 | Ø230 | 5 | 18.5 |
| | SPB | Ø180 | Ø235 | 4 | 17.3 |
| | SPC | Ø190 | Ø245 | 3 | 15 |
| ALFA P/PD/PDX 5 | B | Ø200 | Ø270 | 7 | 5 |
| | C | Ø210 | Ø270 | 5 | 9.3 |
| | SPA | Ø200 | Ø270 | 8 | 18 |
| | SPB | Ø210 | Ø270 | 7 | 5 |
| | SPC | Ø220 | Ø270 | 5 | 9.3 |
| ALFA P/PD/PDX 6 & 7 | B | Ø225 | Ø320 | 8 | 11.3 |
| | C | Ø225 | Ø320 | 6 | 9.15 |
| | SPA | Ø225 | Ø320 | 10 | 13.5 |
| | SPB | Ø225 | Ø320 | 8 | 11.3 |
| | SPC | Ø235 | Ø400 | 6 | 9.15 |

| PULLEY TYPE - 4 | | | | | |
|---------------------------|-----|---------|-------|------------------|-------|
| MODEL | SEC | "D" PCD | | NO. OFF GROVE | K1 |
| | | MIN Ø | MAX Ø | | |
| ALFA P/PD/PDX 3 & 4 | B | Ø235 | Ø320 | 4 | 22 |
| | C | Ø240 | Ø320 | 3 | 20.6 |
| | SPA | Ø235 | Ø320 | 5 | 23.5 |
| | SPB | Ø240 | Ø320 | 4 | 22 |
| | SPC | Ø250 | Ø320 | 3 | 20.6 |
| ALFA P/PD/PDX 5 | B | Ø275 | Ø350 | 7 | 10 |
| | C | Ø285 | Ø350 | 5 | 14.3 |
| | SPA | Ø280 | Ø350 | 8 | 23.3 |
| | SPB | Ø285 | Ø350 | 7 | 10 |
| | SPC | Ø295 | Ø350 | 5 | 14.3 |
| ALFA P/PD/PDX 6 & 7 | B | Ø325 | Ø400 | 8 | 14.3 |
| | C | Ø325 | Ø400 | 6 | 16.3 |
| | SPA | Ø325 | Ø400 | 10 | 14.15 |
| | SPB | Ø325 | Ø400 | 8 | 16.3 |
| | SPC | Ø335 | Ø400 | 6 | 14.3 |



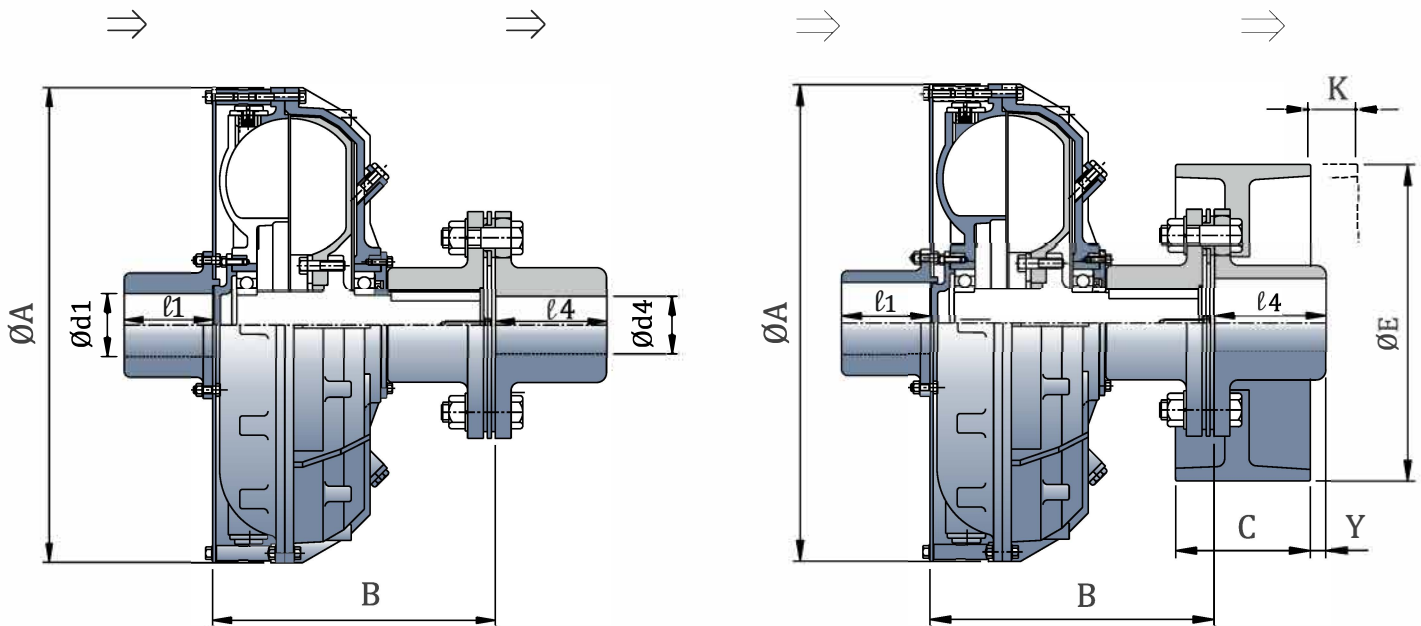
- Starting torque adjustable in the range of 180-275%.
- Normal operating slip is 2 to 5% depending on coupling size and starting torque value.
- Suitable for two consecutive starts from hot and three from cold.
- Fusible plug blow off temperature is 130°C standard. Optional:160°C.
- These couplings are radially displaceable.

Rating Table

| COUPLING MODEL | KW ratings of couplings at different input speeds (RPM) | | |
|----------------|---|---------|----------|
| | 730 RPM | 970 RPM | 1470 RPM |
| T12- | | | |
| 01 | 0.6 | 1.4 | 5.0 |
| 02 | 0.9 | 2.1 | 7.5 |
| 03 | 1.1 | 2.6 | 9.3 |
| 04 | 1.8 | 4.3 | 15.0 |
| 05A | 3.3 | 7.5 | 27.0 |
| 05 | 4.6 | 11.0 | 37.5 |
| 06 | 7.3 | 17.4 | 60.0 |
| 07 | 9.8 | 23.2 | 80.0 |
| 08 | 19.0 | 45.0 | 153.0 |
| 08B | 28.3 | 65.0 | 228.0 |
| 09 | 37.0 | 90.0 | 265.0 |
| 10A | 64.0 | 150.0 | 373.0 |
| 010 | 90.0 | 209.0 | 485.0 |
| 011 | 148.0 | 348.0 | - |
| 012 | 260.0 | 610.0 | - |
| 013 | 500.0 | 850.0* | - |
| 014 | 850.0 | 1000.0* | - |

* Coupling for these rating should be selected only after our approval is obtained.

T-12



Technical Specification and Dimension Table For T12

| Model T-12 | A | B | Ø d1 Maximum | l1 | Ø d4 Maximum | l4 | Dry Weight KG. | Maximum Oil Filling In Litres | Connected Flexible Coupling Model |
|------------|------|-----|--------------|-----|--------------|-----|----------------|-------------------------------|-----------------------------------|
| 01 | 280 | 167 | 35 | 50 | 55 | 70 | 17 | 1.5 | FXC-I |
| 02 | 310 | 181 | 35 | 50 | 55 | 70 | 20 | 3 | FXC-I |
| 03 | 330 | 199 | 50 | 80 | 55 | 70 | 26 | 2.9 | FXC-I |
| 04 | 350 | 216 | 50 | 80 | 60 | 70 | 31 | 3.7 | FXC-II |
| 05A | 395 | 237 | 50 | 80 | 60 | 70 | 48 | 5.1 | FXC-II |
| 05 | 420 | 276 | 75 | 110 | 75 | 95 | 67 | 5.9 | FXC-III A |
| 06 | 465 | 290 | 75 | 110 | 75 | 95 | 75 | 8.4 | FXC-III A |
| 07 | 510 | 314 | 75 | 110 | 90 | 95 | 85 | 11 | FXC-III |
| 08 | 570 | 347 | 110 | 140 | 90 | 110 | 138 | 15 | FXC-III |
| 08B | 615 | 353 | 110 | 140 | 110 | 125 | 176 | 18.6 | FXC-IV A |
| 09 | 650 | 371 | 110 | 140 | 110 | 125 | 183 | 22.2 | FXC-IV A |
| 010A | 700 | 368 | 110 | 140 | 110 | 125 | 198 | 26.3 | FXC-IV A |
| 010 | 750 | 414 | 110 | 140 | 115 | 125 | 234 | 33 | FXC-IV |
| 011 | 860 | 488 | 125 | 210 | 145 | 200 | 395 | 50 | FXC-V |
| 012 | 970 | 568 | 150 | 210 | 145 | 200 | 480 | 75 | FXC-V |
| 013 | 1104 | 594 | 150 | 210 | 195 | 200 | 598 | 108 | FXC-VI |
| 014 | 1230 | 655 | 175 | 210 | 195 | 200 | 995 | 160 | FXC-VI |

Type T12 With Brake Drum

| Flexible Coupling Model | Metallic disc Coupling | | | |
|-------------------------|------------------------|-----|-------|--------|
| | ØE | C | Y | K* Min |
| FXC-I | 160 | 75 | 21 | 26 |
| | 200 | 75 | 21 | 26 |
| FXC-II | 200 | 75 | 19 | 26 |
| | 250 | 95 | 10 | 35 |
| FXC-III A | 250 | 95 | 35 | 35 |
| | 300 | 118 | 32 | 55 |
| | 315 | 118 | 32 | 55 |
| FXC-III | 250 | 95 | 48 | 35 |
| | 300 | 118 | 30 | 55 |
| | 315 | 118 | 30 | 55 |
| | 400 | 150 | 18 | 73 |
| FXC-IV A | 300 | 118 | 52 | 55 |
| | 315 | 118 | 52 | 55 |
| | 400 | 150 | 40 | 65 |
| | 500 | 190 | 05 | 70 |
| FXC-IV | 400 | 150 | 40 | 65 |
| | 500 | 190 | 05 | 70 |
| | 600 | 236 | (-)31 | 80 |
| | 630 | 236 | (-)31 | 80 |
| FXC-V | 500 | 190 | 70 | 70 |
| | 600 | 236 | 34 | 70 |
| | 630 | 236 | 34 | 70 |
| | 710 | 265 | 25 | 90 |

*For radial displacement of Fluid Coupling the Brake drum shall need to be shifted by dimension 'K' As shown. The Machine/G.B. shaft length /space should be adequate for this shift of B.D.

The Steel Body Constant Fill Fluid Couplings



Type SF: are steel body constant fill Traction Coupling with a thin driving plate on motor side and metallic disc coupling on machine side. These couplings are radially displaceable. Starting torque adjustable in range of 180% to 270%.

Type CBSF: are steel body constant fill fluid couplings with hollow shaft execution on one end and flexible coupling on the other end for respective shaft connections. They are available with delayfil chamber type CBSF DF & CBSF DX and without delayfil type CBSF. Also available in Radially Displaceable execution CBSF-HF having metallic disc flexible coupling on both ends.

They are suitable for operation with:

-Water – Oil emulsion as per HFB classification of European Mines safety commission.

-Mineral oil as operating fluid.

-Maximum starting torque transmitting capacity is adjustable between 180% to 270 % for CBSF and 150 to 270% CBSF DF delayfil couplings & 130% to 270% for CBSF DX Couplings with extended delayfil chamber.



Type WF: are steel body constant fill fluid couplings with hollow shaft execution on one end and flexible coupling on the other end for respective shaft connection. They are available with delayfil chamber type WFDF & WFDX with extended delayfil chamber and without delayfil type WF. Also available in Radially Displaceable execution having metallic disc flexible coupling on both ends.

They are suitable for operation with:

-Water (aqua)

-Water oil emulsion as per HFB classification of European Mines Safety Commission.

-Mineral Oil

-Maximum torque transmitting capacity is adjustable between 200% to 270% for type WF and 180% to 270% for WF DF & 130% to 270% of WFDX couplings.



These steel body fluid couplings are of extremely robust construction. They are ideal for use in underground or opencast mines or other sites where use of aluminum is prohibited or where robust construction is necessary with simplicity of construction.

They offer all the advantages and performance characteristics of any other aluminium body Fluidomat Fluid Couplings

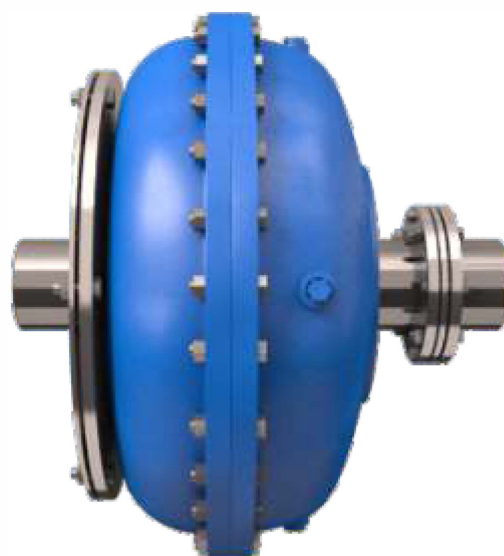
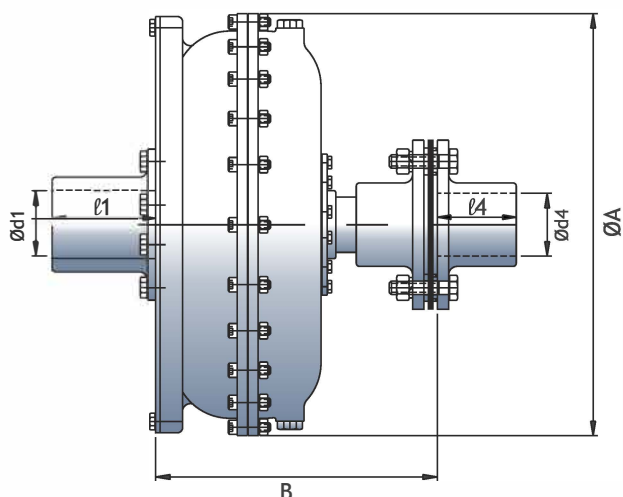
- Virtually no load start and run up of motor and utilization of motor peak torque for load acceleration.
- Smooth and controlled acceleration of driven machine.
- Quick decay of motor starting current kick.
- Adjustable starting characteristics.
- Dampening of shock loads, torsional fluctuations and vibrations.

SF, CBSF & WF

Rating Table

| WF/WFHF and their D & DX Execution | SF/CBSF/ CBSFHF & their D & DX Execution | | | | | | | |
|------------------------------------|--|------|-----|-----|------|------|------|------|
| Model | Model | 600 | 750 | 900 | 1000 | 1200 | 1500 | 1800 |
| WF 4 | 4 | 1 | 1.8 | 3 | 4 | 8 | 15 | 22 |
| WF 360 | 6 | 2.6 | 5 | 9 | 12 | 20 | 40 | 60 |
| WF 5 | 7 | 4 | 7.5 | 13 | 18 | 31 | 60 | 80 |
| WF 6 | 8 | 5.6 | 11 | 19 | 26 | 45 | 80 | 114 |
| WF 7 | 9 | 10 | 19 | 33 | 45 | 78 | 152 | 197 |
| WF 8 | 10 | 14.4 | 28 | 48 | 66 | 115 | 224 | 290 |
| WF 566 | 566 | 20 | 40 | 68 | 93 | 161 | 315 | 375 |
| WF 9 | 11* | 33 | 64 | 111 | 152 | 262 | 373 | 500 |

* Models not offered in type SF



Technical Specification and Dimension Table for coupling type SF

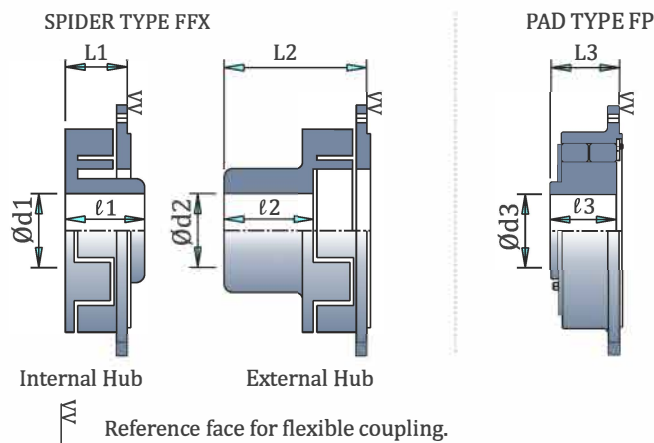
| Fluid Coupling Model SF | $\varnothing A$ | B | $\varnothing d1$ MAX | $l1$ | $\varnothing d4$ MAX | $l4$ | Flex. Coupling Model FXC | Dry Wt. Kg | Max filling liters |
|-------------------------|-----------------|-----|----------------------|------|----------------------|------|--------------------------|------------|--------------------|
| 4 | 375 | 250 | 50 | 80 | 55 | 70 | II | 55 | 4.8 |
| 6 | 418 | 267 | 75 | 110 | 90 | 95 | IIIA | 82 | 7.8 |
| 7 | 470 | 300 | 75 | 110 | 90 | 95 | III | 98 | 10.0 |
| 8 | 508 | 310 | 75 | 110 | 90 | 95 | III | 106 | 13.5 |
| 9 | 570 | 330 | 110 | 140 | 110 | 110 | III | 190 | 18.75 |
| 10 | 620 | 345 | 110 | 140 | 110 | 125 | IV | 205 | 27 |

Technical Specification and Dimension Table For CBSF, CBSF-DF, CBSF-DX

| Model | ØA | B | Ø d4 max | L4 | Threads 'M' BSW | Flexible Coupling Model |
|----------------------|-----|-----|----------|-----|-----------------|-------------------------|
| WF-4, CBSF-4 | 375 | 154 | 42 | 74 | 1" | FFX-1 |
| WF-360, CBSF-6 | 418 | 220 | 55 | 112 | 1" | FFX-3 |
| WFDF-360, CBSFDF-6 | 418 | 316 | 55 | 112 | 1" | FFX-3 |
| WF-5, CBSF-7 | 470 | 250 | 80 | 135 | 1½" | FFX-3 |
| WFDF-5, CBSFDF-7 | 470 | 320 | 80 | 135 | 1½" | FFX-3 |
| WF-6, CBSF-8 | 512 | 253 | 85 | 140 | 1½" | FFX-4 |
| WFDF-6, CBSFDF-8 | 512 | 328 | 85 | 140 | 1½" | FFX-4 |
| WFDX-6, CBSFDF-8 | 512 | 373 | 85 | 140 | 1½" | FFX-4 |
| WF-7 | 570 | 277 | 95 | 155 | 1½" | FFX-4 |
| WFDF-7 | 570 | 355 | 95 | 155 | 1½" | FFX-4 |
| WFDX-7 | 570 | 377 | 95 | 155 | 1½" | FFX-4 |
| CBSF-9 | 570 | 237 | 95 | 155 | 1½" | FFX-4 |
| CBSFDF-9 | 570 | 315 | 95 | 155 | 1½" | FFX-4 |
| CBSFDF-9 | 570 | 355 | 95 | 155 | 1½" | FFX-4 |
| WF-8, CBSF-10 | 620 | 291 | 95 | 170 | 1½" | FP-1 |
| WFDF-8, CBSFDF-10 | 620 | 370 | 95 | 170 | 1½" | FP-1 |
| WFDX-8, CBSFDF-10 | 620 | 451 | 95 | 170 | 1½" | FP-1 |
| WF-566, CBSF-566 | 644 | 313 | 110 | 172 | 1½" | FP-1 |
| WFDF-566, CBSFDF-566 | 644 | 392 | 110 | 172 | 1½" | FP-1 |
| WFDX-566, CBSFDF-566 | 644 | 473 | 110 | 172 | 1½" | FP-1 |
| WF-9, CBSF-11 | 715 | 367 | 110 | 200 | Ø50-8P * | FP-2A |
| WFDF-9, CBSFDF-11 | 715 | 425 | 110 | 200 | Ø50-8P * | FP-2A |
| WFDX-9, CBSFDF-11 | 715 | 508 | 110 | 200 | Ø50-8P * | FP-2A |

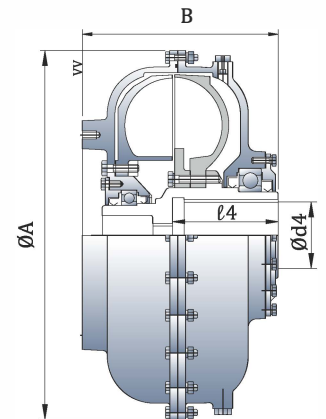
* Square Thread

Flexible Coupling

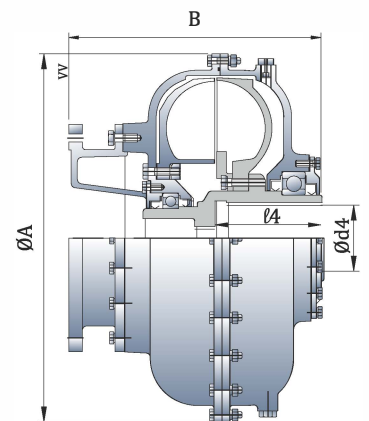


| Flexible Coupling Model | Internal Hub | | | External Hub | | | Pad type coupling | | |
|-------------------------|--------------|-----|----|--------------|-----|-----|-------------------|-----|-----|
| | Ø d1 max | l1 | L1 | Ø d2 max | l2 | L2 | Ø d3 max | l3 | L3 |
| FFX-1 | 42 | 67 | 67 | 60 | 75 | 130 | -- | -- | -- |
| FFX-3 | 80 | 92 | 72 | 90 | 110 | 170 | -- | -- | -- |
| FFX-4 | 90 | 102 | 87 | 100 | 120 | 195 | -- | -- | -- |
| FP-1 | -- | -- | -- | -- | -- | -- | 100 | 110 | 120 |
| FP-2 | -- | -- | -- | -- | -- | -- | 120 | 140 | 151 |

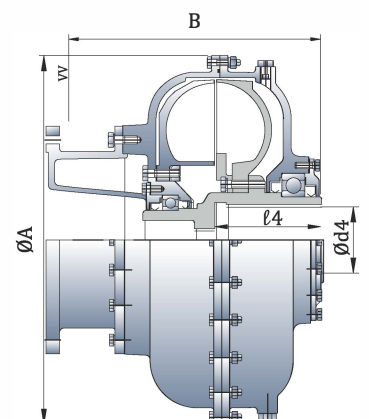
TYPE:- WF, CBSF



TYPE:-WFDF, CBSF DF

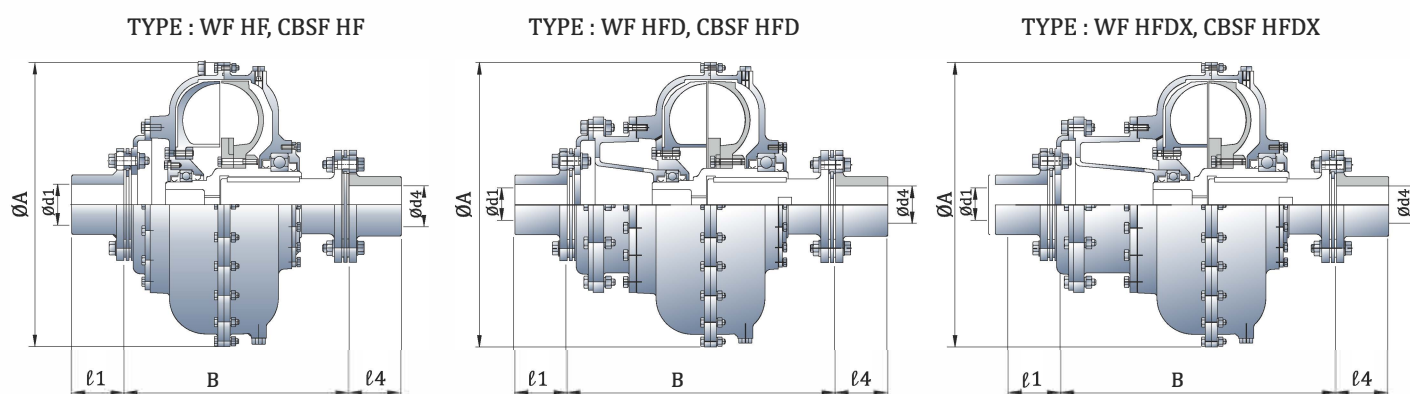


TYPE:-WFDFX, CBSF DX



SF, CBSF & WF

Type WF HF & CBSF HF are radially displaceable fluid couplings with metallic disc flexible coupling on both input and output ends. These metallic disc couplings do not require any lubrication and require least maintenance. The weight of fluid coupling is shared by motor and driven machine shaft thus reducing weight reaction on gear box shafts which are of small diameters in modern designs.



Technical Specification and Dimension Table For WFHF & CBSFHF

| Fluid Coupling Model | $\varnothing A$ | B | $\varnothing d 1$ max | $l 1$ | $\varnothing d 4$ max | $l 4$ | Flex Coupling Model FXC |
|--------------------------|-----------------|-----|-----------------------|-------|-----------------------|-------|-------------------------|
| WFHF-4, CBSFHF-4 | 380 | 278 | 55 | 70 | 55 | 70 | FXC-II |
| WFHFD-4, CBSFHFD-4 | 380 | 364 | 55 | 70 | 55 | 70 | FXC-II |
| WFHF-360, CBSFHF-6 | 436 | 350 | 75 | 95 | 75 | 95 | FXC-III A |
| WFHFD-360, CBSFHFD-6 | 436 | 446 | 75 | 95 | 75 | 95 | FXC-III A |
| WFHF-5, CBSFHF-7 | 470 | 380 | 75 | 95 | 75 | 95 | FXC-III A |
| WFHFD-5, CBSFHFD-7 | 470 | 500 | 75 | 95 | 75 | 95 | FXC-III A |
| WFHF-6, CBSFHF-8 | 512 | 384 | 90 | 110 | 90 | 110 | FXC-III |
| WFHFD-6, CBSFHFD-8 | 512 | 458 | 90 | 110 | 90 | 110 | FXC-III |
| WFHFDX-6, CBSFHFDX-8 | 512 | 504 | 90 | 110 | 90 | 110 | FXC-III |
| WFHF-7, CBSFHF-9 | 570 | 402 | 90 | 110 | 90 | 110 | FXC-III |
| WFHFD-7, CBSFHFD-9 | 570 | 480 | 90 | 110 | 90 | 110 | FXC-III |
| WFHFDX-7, CBSFHFDX-9 | 570 | 502 | 90 | 110 | 90 | 110 | FXC-III |
| WFHF-8, CBSFHF-10 | 620 | 470 | 110 | 125 | 110 | 125 | FXC-IV A |
| WFHFD-8, CBSFHFD-10 | 620 | 550 | 110 | 125 | 110 | 125 | FXC-IV A |
| WFHFDX-8, CBSFHFDX-10 | 620 | 630 | 110 | 125 | 110 | 125 | FXC-IV A |
| WFHF-566, CBSFHF-566 | 644 | 500 | 110 | 125 | 110 | 125 | FXC-IV A |
| WFHFD-566, CBSFHFD-566 | 644 | 578 | 110 | 125 | 110 | 125 | FXC-IV A |
| WFHFDX-566, CBSFHFDX-566 | 644 | 659 | 110 | 125 | 110 | 125 | FXC-IV A |
| WFHF-9, CBSF HF-11 | 715 | 528 | 110 | 125 | 110 | 125 | FXC-IV A |
| WFHFD-9, CBSF HFD-11 | 715 | 586 | 110 | 125 | 110 | 125 | FXC-IV A |
| WFHFDX-9, CBSF HFDX-11 | 715 | 669 | 110 | 125 | 110 | 125 | FXC-IV A |

Recommended Oil For Constant Fill Fluid Couplings.

For Oil Filled Couplings

AS PER ISOVG - 32 HLP Grade

VISCOSITY : 32 @ 40°C

FLASH POINT ≥ 190°C

For Water Filled Couplings

VISCOSITY (at 40° C) : 40 - 44 cst

FIRE POINT ≥ 368° C

FLASH POINT ≥ 254° C

Fire Resistance Hydraulic Fluids.

Shell Turbo DR46/Fuchs

Phosphocent 246

Anvol PE 46 XC/Equivalent.

Equivalent Oil Grades and Brands as per ISOVG 32

| Brand | Viscosity C.St @ 40°c | Viscosity Index (In°c) | Flash Point (In °c) | Pour Point (Min) (In °c) |
|-------------------------|-----------------------|------------------------|---------------------|--------------------------|
| HP ENCLO 32 | 32 | 95 | 190 | (-) 3 |
| HP-ENCLO VT 32 | 32 | 109 | 224 | (-) 37 |
| IOC- SERVOSYSTEM 32 | 29-33 | 95 | 190 | (-) 6 |
| IOC- SERVOSYSTEM HLP 32 | 29-33 | 100 | 200 | (-) 21 |
| SHELL TELLUS 32 | 32 | 99 | 209 | (-) 30 |
| CASTROL HYPH-AWH 32 | 32 | 95 | 180 | (-) 3 |
| BPL HYDROIL HLP 32 | 29-35 | 95 | 185 | (-) 18 |

Other Equivalent Brands

| Brand | Designation | Flash Point (In °c) |
|---------|--------------------|---------------------|
| BP | BP- Energol HLP-32 | 216 |
| CASTROL | Hyspin 32 | 220 |
| CHEVRON | Mechanism LPS-32 | 200 |
| ESSO | Esso Torque Fluid | 220 |
| MOBIL | Mobil Fluid 32 | 225 |
| SHELL | Tegula Oil 32 | 196 |
| AGIP | AGIP Oso 32 | 204 |
| FUCHS | Renolin MR10 | 210 |

MASS MOMENT OF INERTIA J

Oil in KG M²

| Model | Outer wheel | Inner wheel |
|--------|-------------|-------------|
| SM-3 | 0.22 | 0.04 |
| SM-4 | 0.33 | 0.06 |
| SM-5 | 0.68 | 0.21 |
| SM-6 | 0.89 | 0.24 |
| SM-7 | 1.32 | 0.34 |
| SM-8 | 1.72 | 0.37 |
| SM8-B | 2.40 | 0.64 |
| SM-9 | 2.82 | 0.75 |
| SM-9B | 4.65 | 1.53 |
| SM-10 | 5.01 | 1.72 |
| SM-10B | 10.15 | 2.90 |
| SM-11 | 11.66 | 3.41 |
| SM-12 | 18.30 | 5.56 |
| SM-13 | 35.74 | 12.22 |
| SM-14 | 61.55 | 21.70 |
| SM-15 | 93.13 | 33.70 |

| Model | Outer wheel | Inner Wheel |
|---------|-------------|-------------|
| SMD-3 | 0.23 | 0.04 |
| SMD-4 | 0.35 | 0.06 |
| SMD-5 | 0.71 | 0.21 |
| SMD-6 | 0.97 | 0.24 |
| SMD-7 | 1.47 | 0.34 |
| SMD-8 | 1.85 | 0.39 |
| SMD-8B | 2.61 | 0.67 |
| SMD-9 | 3.06 | 0.78 |
| SMD-9B | 5.09 | 1.58 |
| SMD-10 | 6.07 | 1.79 |
| SMD-10B | 11.30 | 3.00 |
| SMD-11 | 12.97 | 3.55 |
| SMD-12 | 20.33 | 5.86 |
| SMD-13 | 39.82 | 12.75 |
| SMD-14 | 68.04 | 22.56 |
| SMD-15 | 102.70 | 35.07 |
| SMD-16 | 162.00 | 54.10 |

| Model | Outer wheel | Inner Wheel |
|----------|-------------|-------------|
| SMDX-3 | 0.24 | 0.04 |
| SMDX-4 | 0.36 | 0.06 |
| SMDX-5 | 0.74 | 0.21 |
| SMDX-6 | 1.04 | 0.24 |
| SMDX-7 | 1.59 | 0.34 |
| SMDX-8 | 1.96 | 0.39 |
| SMDX-8B | 2.76 | 0.67 |
| SMDX-9 | 3.24 | 0.78 |
| SMDX-9B | 5.55 | 1.58 |
| SMDX-10 | 7.04 | 1.79 |
| SMDX-10B | 12.30 | 3.00 |
| SMDX-11 | 14.07 | 3.55 |
| SMDX-12 | 21.93 | 5.86 |
| SMDX-13 | 43.02 | 12.75 |
| SMDX-14 | 73.14 | 22.56 |
| SMDX-15 | 110.70 | 35.07 |

| Model | * Outer wheel | Inner Wheel |
|-------|---------------|-------------|
| SMP-1 | 0.11 | 0.02 |
| 2 | 0.15 | 0.03 |
| 3 | 0.28 | 0.04 |
| 4 | 0.37 | 0.05 |
| 5 | 0.76 | 0.12 |
| 6 | 0.96 | 0.25 |
| 7 | 1.43 | 0.34 |
| 8 | 1.88 | 0.47 |
| 9 | 2.89 | 0.65 |
| 10 | 5.37 | 2.11 |
| 11 | 11.98 | 3.43 |

| Model | Outer Wheel | Inner Wheel |
|--------|-------------|-------------|
| HF-3 | 0.25 | 0.05 |
| HF-4 | 0.39 | 0.07 |
| HF-5 | 0.66 | 0.23 |
| HF-6 | 0.69 | 0.29 |
| HF-7 | 1.32 | 0.35 |
| HF-8 | 1.72 | 0.49 |
| HF-8B | 2.40 | 0.64 |
| HF-9 | 2.82 | 0.76 |
| HF-9B | 4.65 | 1.91 |
| HF-10 | 5.01 | 2.11 |
| HF-10B | 10.15 | 3.34 |
| HF-11 | 11.66 | 3.93 |
| HF-12 | 18.30 | 7.31 |
| HF-13 | 35.74 | 14.25 |
| HF-14 | 61.46 | 24.10 |
| HF-15 | 93.13 | 37.24 |

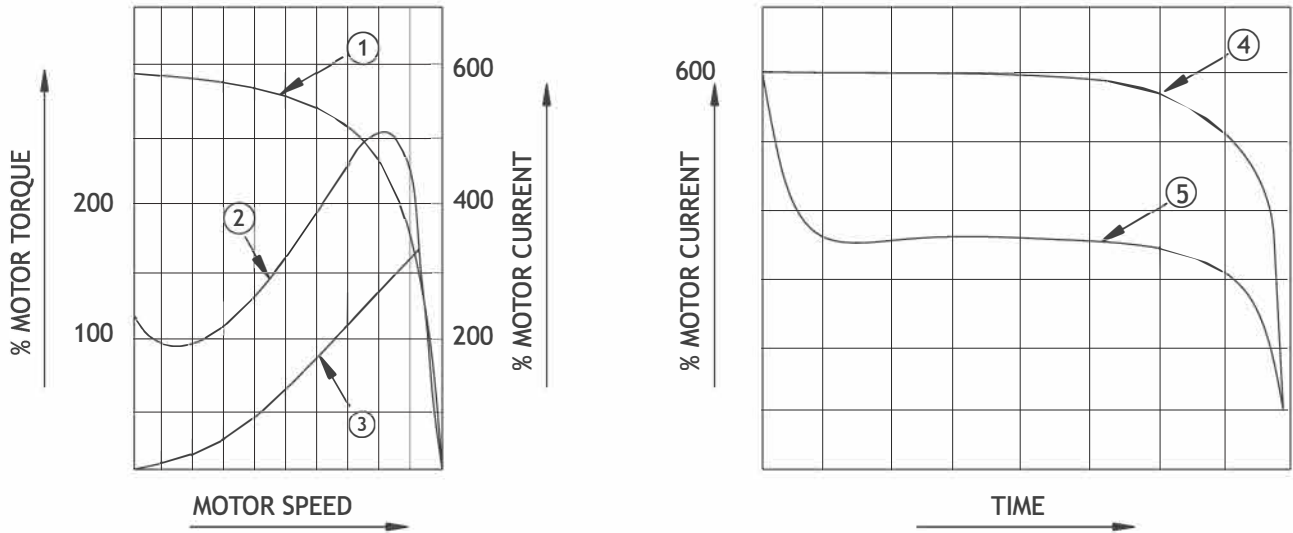
| Model | Outer Wheel | Inner Wheel |
|---------|-------------|-------------|
| HFD-3 | 0.26 | 0.05 |
| HFD-4 | 0.41 | 0.07 |
| HFD-5 | 0.71 | 0.24 |
| HFD-6 | 0.97 | 0.30 |
| HFD-7 | 1.46 | 0.40 |
| HFD-8 | 1.85 | 0.51 |
| HFD-8B | 2.61 | 0.72 |
| HFD-9 | 3.06 | 0.93 |
| HFD-9B | 5.09 | 1.96 |
| HFD-10 | 6.07 | 2.18 |
| HFD-10B | 11.30 | 3.44 |
| HFD-11 | 12.97 | 4.07 |
| HFD-12 | 20.33 | 7.61 |
| HFD-13 | 39.82 | 14.78 |
| HFD-14 | 68.04 | 24.98 |
| HFD-15 | 102.70 | 38.61 |
| HFD-16 | - | - |

| Model | Outer wheel | Inner wheel |
|----------|-------------|-------------|
| HFDX-3 | 0.27 | 0.05 |
| HFDX-4 | 0.42 | 0.07 |
| HFDX-5 | 0.74 | 0.24 |
| HFDX-6 | 1.04 | 0.30 |
| HFDX-7 | 1.59 | 0.40 |
| HFDX-8 | 1.96 | 0.51 |
| HFDX-8B | 2.76 | 0.72 |
| HFDX-9 | 3.24 | 0.93 |
| HFDX-9B | 5.55 | 1.96 |
| HFDX-10 | 7.04 | 2.18 |
| HFDX-10B | 12.30 | 3.44 |
| HFDX-11 | 14.07 | 4.07 |
| HFDX-12 | 21.93 | 7.61 |
| HFDX-13 | 43.02 | 14.78 |
| HFDX-14 | 73.14 | 24.98 |
| HFDX-15 | - | - |

| Model | Outer wheel | Inner wheel |
|--------|-------------|-------------|
| T12-01 | 0.11 | 0.02 |
| 02 | 0.15 | 0.03 |
| 03 | 0.19 | 0.04 |
| 04 | 0.27 | 0.05 |
| 05A | 0.57 | 0.12 |
| 05 | 0.78 | 0.25 |
| 06 | 1.32 | 0.34 |
| 07 | 1.72 | 0.47 |
| 08 | 2.44 | 0.65 |
| 08B | 4.11 | 1.69 |
| 09 | 5.01 | 2.11 |
| 10A | 8.57 | 2.82 |
| 10 | 10.18 | 3.43 |
| 11 | 20.95 | 8.37 |
| 12 | 35.74 | 14.25 |
| 13 | 61.35 | 24.10 |
| 14 | 93.13 | 37.24 |

* Values for maximum size of direct mounting pulley.

QUICK DECAY OF MOTOR CURRENT WITH FLUID COUPLING



(TYPICAL)

- 1 MOTOR CURRENT
- 2 MOTOR TORQUE
- 3 FLUID COUPLING TORQUE AT 100% SLIP
- 4 MOTOR CURRENT WITHOUT FLUID COUPLING
- 5 MOTOR CURRENT WITH FLUID COUPLING

All Dimension in this catalogue are in mm unless specified otherwise.

Note: Due to continuous improvements the specifications may change without notice.



THERMAL PROTECTION

MTP SYSTEM

The operating temperature of MTP is as under:

| MTP SETTING | FUSIBLE PLUG MELTING TEMPERATURE |
|-------------|----------------------------------|
| <110 °c | 130 °c ± 5°c |
| <140 °c | 160 °c ± 5°c |

1. FUSIBLE PLUG: In case of over heating of the coupling, the fusible plug provided on the coupling melts and oil filled in the coupling is drained off and thus power transmission through the coupling is stopped.

Coupling should not be run more than 60 seconds after fusible plug has melted and oil is drained. Suitable guard must be provided so that the hot oil spray is restricted within the guard.

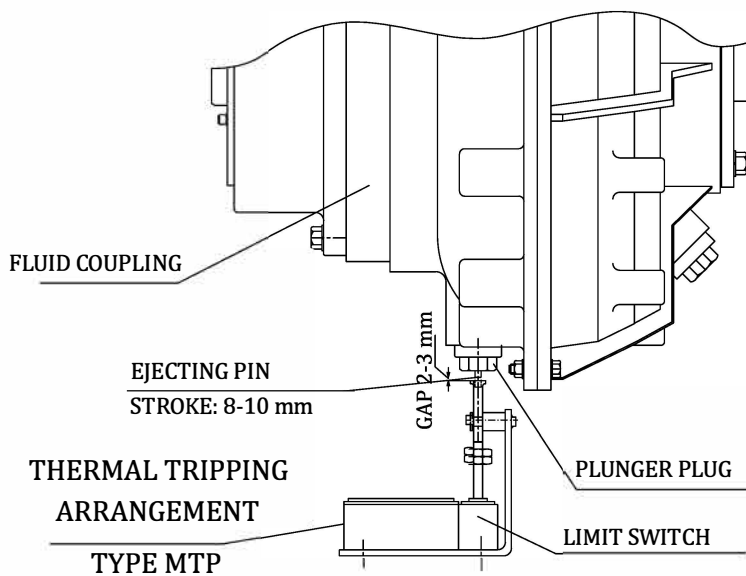
2. THERMAL TRIPPING ARRANGEMENT: MTP is a mechanical Thermal Switch. In order to avoid loss of operating fluid due to over heating of fluid coupling the mechanical Thermal Switch MTP can be added. However fusible plug with higher response temperature remains on the fluid coupling.

MTP consist of a plunger plug screwed on the fluid coupling body. A cam with limit switch are mounted on stationary base frame.

On exceeding the set temperature, the plunger plug ejects out a pin which hits the cam and operates the limit switch contact (make or break). Depending on the circuit selected the limit switch signal can be used to switch off the drive motor or activate audio/visual alarm.

The plunger plug has to be replaced after activation.

MTP system provides valuable safety and environment protection by avoiding spillage and loss of expensive operating fluid. Spillage of operating fluid can be expensive fire and accident hazard due to slippery floors and injury to workmen.



NON CONTACT ONLINE TEMPERATURE MONITOR WITH DISPLAY AND RELAY OUTPUT

TYPE-IRNC:

The IRNC operates on Infrared pyrometer and consists of stationery infrared non-contact pyrometer and a precision temperature controller. The non-contact infrared sensor is placed in any direction within 50 mm from body of fluid couplings.

The heat emitted by the body is sensed by sensor and gives a voltage output which is processed in the base unit and gives relay output on exceeding preset temperature values.

IRNC systems provide valuable safety and environment protection by avoiding spillage and loss of expensive operating fluid and fire hazardous due to hot oil spray.

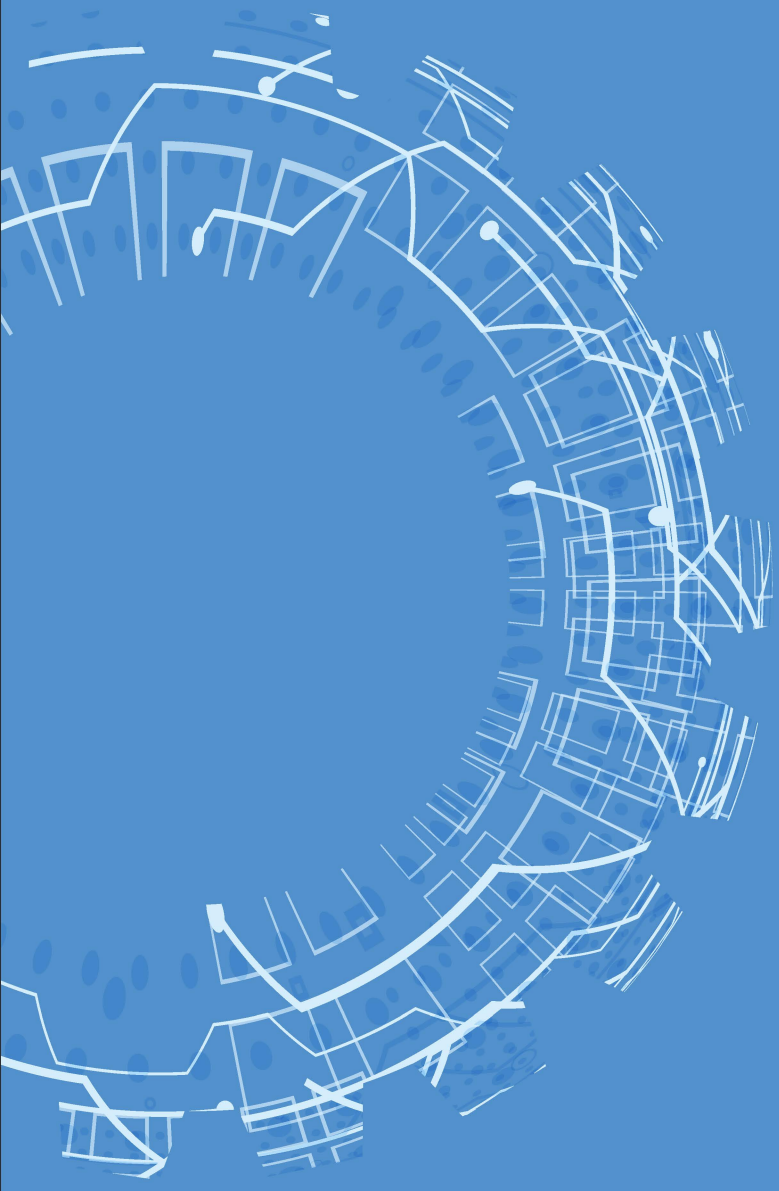
Suggested temperature settings an IRNC system:

IRNC Setting

| Set Point | Fusible Plug Melting Temp |
|-----------|---------------------------|
| < 105 °c | 130 °c ± 5°c |
| < 135 °c | 160 °c ± 5°c |

Fusible plug must be used along with the system as a backup protection.





 **FLUIDOMAT**

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